

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 8 has been amended for clarity.

The Examiner has indicated that should claim 12 be found allowable, claim 13 will be objected to under 37 C.F.R. 1.75 as being a substantial duplicate thereof.

Applicants submit that the Examiner is mistaken. In particular, claim 12 claims the embodiment of the invention as shown in Fig. 6, where the guide shaft SH2 is parallel to the radial direction R1 of the turntable 101, while claim 13 claims the embodiment of the invention as shown in Fig. 7, where the guide shaft SH2 is parallel to the radial direction R2 of the information carrier D. As such, Applicants believe that claim 13 is not a substantial duplicate of claim 12.

The Examiner has rejected claims 8-10 and 14 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2001/0004342 to Noda et al. The Examiner has further rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Noda et al. in view of U.S. Patent 5,040,164 to Liu. In addition, the Examiner has rejected claims 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Noda et al. in view of U.S. Patent 6,088,203 to Nakamura et al.

The Noda et al. application discloses an optical disk driving device for use with optical disks having a tilt therein due to, for example, warpage. The device includes a clamper which

applies a differential pressure to the inner and outer areas of an optical disk in order to correct any warpage of the optical disk.

The subject invention, as claimed in, for example, claim 8, is also for disks exhibiting warpage. However, instead of attempting to eliminate or correct any warpage of the optical disk, the subject invention increases the amount of tilt (or warpage) to a predetermined height difference (i.e., between an inner area of the optical disk and an outer area thereof) which is greater than that found on any optical disk. As such, the resulting amount of tilt is a predetermined amount which is then easily compensated either mechanically or electronically by the apparatus of the subject invention.

Applicants therefore submit that Noda et al. neither discloses nor suggests "additional means for applying an end load on said outer area of said information carrier for setting a predetermined height difference between said inner area and said outer area, said predetermined height difference being greater than a maximum initial height difference occurring in a circular information carrier".

The Examiner now states "In response to Applicants' argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an intentional initial tilt effected by the structure of the optical disk clamping system) are not recited in the rejected claim(s). Although the claims are interpreted in light

of the specification, limitations from the specification are not read into the claims."

Applicants believe that the Examiner has a misunderstanding of the subject invention. In particular, as shown in Fig. 1 and described in the specification on page 5, lines 1-4 and 9-14, the ring RG1 forces a tilt (warpage) of the disk to a bias value H. This bias value H is higher than "the largest initial tilt value of information carriers that can be found on the market". Claim 8 presents this situation in the limitation "additional means for applying an end load on said outer area of said information carrier for setting a predetermined height difference between said inner area and said outer area, said predetermined height difference being greater than a maximum initial height difference occurring in a circular information carrier", where the predetermined height difference corresponds to bias value H, and the maximum initial height difference corresponds to the largest initial tilt value.

Therefore, the arrangement as claimed in claim 8 does not effect an intentional initial tilt, but rather effects a tilt value (predetermined height difference), which is greater than an initial tilt (a maximum initial height difference).

Applicants submit that this limitation in claim 8 is not met by Noda et al.

The Liu patent discloses a record player having a turntable 3 rotatably mounted on a spindle 7. The record player

includes a base plate 1 having a depressed portion 10 within which are mounted two opposing balance wheels 81 "for preventing slant or inclination of the centering spindle 7 caused by manually rotating the turntable 3".

The Examiner states that Liu discloses "said additional means comprise a wheel rotating freely around a shaft interdependent with said apparatus, said wheel being intended to be in contact with the periphery of said information carrier when said information carrier is clamped in said turntable (Col. 2, Lines 54-68; see Fig. 1, element 81; see Fig. 3, element 81)."

Applicants believe that the Examiner is mistaken. In particular, as claimed in claim 11, the "wheel" is an embodiment of the "additional means" of claim 8 and therefore includes the limitations thereof, i.e., "for applying an end load on said outer area of said information carrier for setting a predetermined height difference between said inner area and said outer area, said predetermined height difference being greater than a height difference occurring in a circular information carrier". As claimed in claim 11, "said wheel contacting said outer area of said information carrier, said contact defining a contact point projecting below or above said inner area thereby effecting said predetermined height difference".

Applicants submit that a careful review of Liu will show that Liu neither discloses nor suggests that the balancing wheel(s) contact the information carrier (i.e., the record 9 placed on the turntable). Rather, the balancing wheels are for preventing a

tilting of the turntable. Further, Applicants submit that there is no disclosure that the balancing wheel(s) in contacting the information carrier or the turntable define "a contact point projecting below or above said inner area thereby effecting said predetermined height difference".

The Examiner now states "Liu discloses, in Col. 2, Lines 54-68, a pair of balancing wheels made of frictional material, and a turntable including apertures for the balancing wheels, thus the balancing wheels contacting the information medium. Therefore claim 11 stays rejected."

Applicants again submit that the Examiner is mistaken. It should be apparent that turntable 3 rotates with respect to the base plate 1 having the central depressed portion 10. If, the balance wheels 81, which "include a pair of brackets 83, each of which has two spaced posts upraised or rising from the depressed portion 10", extend through the unlabelled holes in the turntable 3 such that they press against an information carrier resting on the turntable, then the turntable would not be able to rotate!

The Liu patent, at col. 2, lines 54-57, states:

"A pair of balance wheels 81 are opposedly provided in the depressed portion of the palte 1 for preventing slant or inclination of the center spindxle 7 caused by manually rotating the turntable 3";

and, at lines 66-68:

"The wheels 81 as constructed allow a slight inclination or slanting of the turntable 3 which is rotatably mounted on the centering spindle 7."

If the wheels 81 were to extend through the unlabeled holes to be in contact with the information carrier, then they would not be able to limit the amount of tilt of the turntable 3 thereby defeating their purpose.

Applicants therefore reiterate that Liu neither shows nor suggests "said wheel contacting said outer area of said information carrier, said contact defining a contact point projecting below or above said inner area thereby effecting said predetermined height difference".

The Nakamura et al. patent discloses a three position magnetic head vertical movement device in which an actuator is movable along a guide shaft parallel to a radial direction of the turntable and/or the record carrier, and having an optical axis perpendicular to the radial direction of the record carrier. However, Applicants submit that Nakamura et al. does not supply that which is missing from Noda et al., i.e., "additional means for applying an end load on said outer area of said information carrier for setting a predetermined height difference between said inner area and said outer area, said predetermined height difference being greater than a maximum initial height difference occurring in a circular information carrier".

In view of the above, Applicants believe that the subject invention, as claimed in claims 8-14, is neither anticipated nor

rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 8-14, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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